

Owner's Operating Service Instruction Manual

10¢

- ASSEMBLY
- OPERATION
- REPAIR PARTS

Model Nos.
116-890A
116-892A
116-900A
116-902A

20" & 22" ROTARY MOWERS

MTD PRODUCTS INC • 5389 WEST 130th STREET • P. O. BOX 2741 CLEVELAND OHIO 44111

PRINTED IN U.S.A.

FORM NO. 770-6145

IMPORTANT

It is suggested that this manual be read in its entirety before attempting to assemble or operate. Keep this manual in a safe place for future reference and for ordering replacement parts.

This unit is shipped WITHOUT GASOLINE or OIL. After assembly, see operating section of this manual for proper fuel and amount.

SAFE OPERATION PRACTICES FOR WALK-BEHIND MOWERS

TRAINING

1. Read the Operating and Service Instruction Manual carefully. Be thoroughly familiar with the controls and the proper use of the equipment.
2. Never allow children to operate a power mower.
3. Keep the area of operation clear of all persons, particularly small children and pets.

PREPARATION

1. Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wire, bones and other foreign objects.
2. Do not operate equipment when barefoot or wearing open sandals. Always wear substantial footwear.
3. Check the fuel before starting the engine. Do not fill the gasoline tank indoors, when the engine is running, or while the engine is still hot. Wipe off any spilled gasoline before starting the engine.
4. Disengage the self-propelled mechanism or drive clutch on units so equipped before starting the engine.
5. Never attempt to make a wheel adjustment while the engine is running.
6. Mow only in daylight or in good artificial light.
7. Never operate the equipment in wet grass. Always be sure of your footing; keep a firm hold on the handle and walk, never run.

OPERATION

1. Do not change the engine governor settings or overspeed the engine.
2. Do not put hands or feet near or under rotating parts. Keep clear of the discharge opening at all times.
3. Stop the blade(s) when crossing gravel drive, walks or roads.
4. After striking a foreign object, stop the engine, remove the wire from the spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

5. If the equipment should start to vibrate abnormally, stop the engine and check immediately for the cause. Vibration is generally a warning of trouble.
6. Stop the engine whenever you leave the equipment, before cleaning the mower housing, and when making any repairs or inspections.
7. When cleaning, repairing or inspecting, make certain the blade and all moving parts have stopped. Disconnect the spark plug wire, and keep the wire away from the plug to prevent accidental starting.
8. Do not run the engine indoors.
9. Shut the engine off and wait until the blade comes to a complete stop before removing the grass catcher or unclogging chute.
10. Mow across the face of slopes, never up-and-down. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes.
11. Always disconnect electric mowers (line operated) before cleaning, repairing or adjusting.
12. Never operate mower without proper guards, plates or other safety protective devices in place.
13. Keep washout ports and other mower-housing service openings closed when mowing.

MAINTENANCE AND STORAGE

1. Check the blade and engine mounting bolts at frequent intervals for proper tightness.
2. Keep all nuts, bolts, and screws tight to be sure the equipment is in safe working condition.
3. Never store the equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow the engine to cool before storing in any enclosure.
4. To reduce fire hazard, keep the engine free of grass, leaves, or excessive grease.
5. Check the grass catcher bag frequently for wear or deterioration. Replace with new bag for safety protection.

ASSEMBLY INSTRUCTIONS

HANDLE ASSEMBLY FOR MODELS 116-890A AND 116-900A

1. Remove the loose hardware from the assembly pack. You will need a screw driver and a 5/16" wrench, either a socket as shown in figure 1 or an open end wrench.



It may be necessary to spread the ends of the lower handle outward slightly to assure a snug fit against the bracket mounting area.

2. Assemble the lower handle to the handle brackets as shown in figure 2.
3. Secure the handle with cotter hairpins on both sides. See figure 2.
4. Place the handle panel over the lower handle and fasten with the handle panel screw using a 5/16" wrench. See figure 3.
5. Place the upper handle over the lower handle and line up the holes as shown in figure 4.
6. Insert the curved head bolt from the inside and tighten the knob by hand. See figure 4.
7. Place the throttle control in the handle panel and assemble it with the two throttle screws using a screw driver. See figure 5.
8. Use the cable clip to fasten the throttle control wire to the lower handle.
9. Check ALL nuts and bolts for correct tightness.

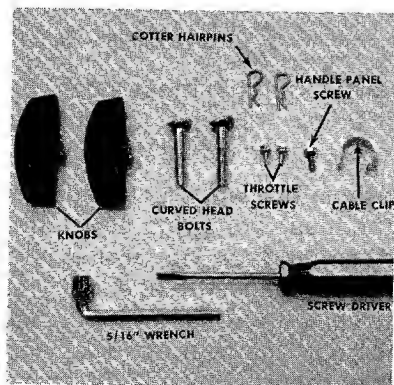


FIGURE 1. LOOSE HARDWARE AND TOOLS

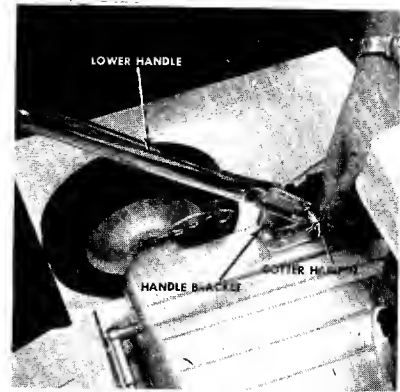


FIGURE 2. LOWER HANDLE ASSEMBLY



FIGURE 3. HANDLE PANEL ASSEMBLY

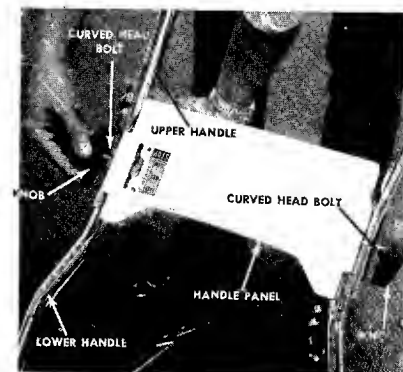


FIGURE 4. UPPER HANDLE ASSEMBLY

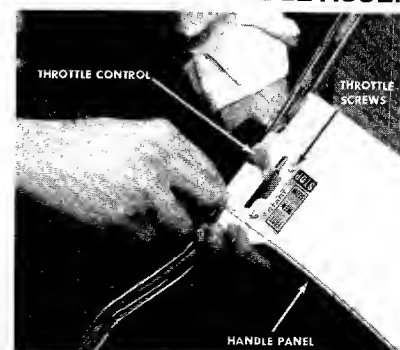


FIGURE 5. THROTTLE CONTROL ASSEMBLY

HANDLE ASSEMBLY FOR MODELS 116-892A AND 116-902A

Your new mower is shipped completely assembled with the exception of the handle and throttle control assembly.

1. Remove lawn mower and all parts from carton. Make certain that all loose parts and literature are removed from carton before carton is discarded.
2. Extend throttle control assembly, which is attached to engine, to rear of mower and place on floor.



CAUTION

Do not bend or kink control wire.

3. Assemble upper handle to lower handle using two curved bolts and hand knobs provided in parts bag.
4. Assemble complete handle assembly to mower so that throttle control mounting hole in upper handle will be on right side. Holes at bottom of lower handle are to be fitted over studs located in front of each rear wheel mounting bracket.
5. Position throttle control assembly on right hand side of upper handle so that holes in control assembly and handle are in line. Secure in place with screw and locknut found in parts bag. Secure throttle wire to lower right handle with clips in parts bag.
6. Check ALL nuts and bolts for correct tightness.



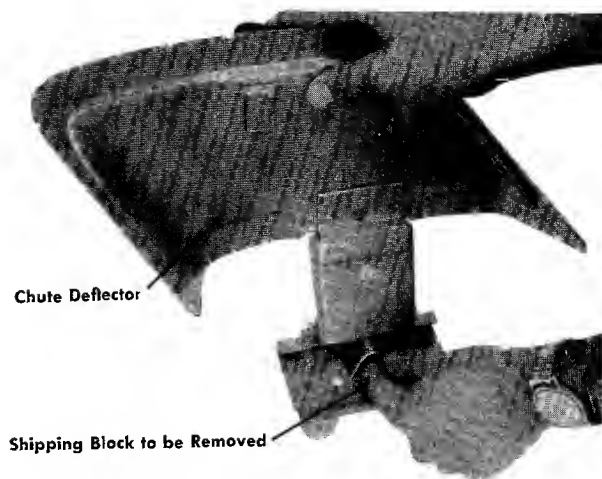
NOTE

It may be necessary to spread the ends of the lower handle outward slightly to assure a snug fit against the bracket mounting area.



CAUTION

Please note that the chute deflector on your mower is in an upright position. It is held in that position by a shipping block. This shipping block is used for shipping purposes only. It must be removed and discarded before your mower is put into operation.



OPERATION



NOTE

For shipping purposes your mower is set with the wheels in a low cutting height position. For best results raise the cutting position until it is determined which height is best for your lawn. See adjustments.

1. Service engine with gas and oil. See Engine Instructions for the care and maintenance of engine. **READ DIRECTIONS CAREFULLY.**
2. When ready to start engine, place throttle control lever on handle in **START** position and start engine in accordance with Engine Instructions. After engine starts, move throttle control on handle to desired engine speed. The engine is stopped by placing control lever on handle in the **STOP** position.
3. Be sure that lawn is clear of stones, sticks, wire or other objects which could damage lawn mower or engine. For best results and to insure more even grass distribution, do not mow when lawn is excessively wet.

CUTTING

For best lawn results in most areas, grass should not be cut below 2 inches, as cutting the grass blades short tends to retard its growth.

It is important that when sharpening the cutting edges of the blade you grind equal amounts from each cutting surface to preserve the blade balance. An unbalanced blade will vibrate. Never operate mower with a bent or unbalanced blade as it will cause damage to the mower and engine. A sharp blade insures best cutting results and minimum engine wear. Never install or remove blade with engine spark plug wire attached.

ADJUSTMENTS



CAUTION

Do not at any time make any adjustment to lawn mower without first stopping engine and disconnecting spark plug wire.

Cutting Height—An adjusting plate and thumb lever at each wheel position provides cutting height adjustment. Each adjusting plate has five lugs. Height of cut will be changed when the thumb lever is moved from one lug to another. Simply depress thumb lever toward wheel and move wheel and lever assembly to desired position. Cutting height will be raised as lever is moved toward front and lowered as lever is moved toward rear. All wheels must be positioned in relative height of cut positions.



IMPORTANT

After striking a foreign object, stop the engine (motor), remove wire from spark plug, thoroughly inspect the mower for any damage and repair the damage before restarting and operating the mower.

Throttle—If adjustment becomes necessary, the throttle control wire assembly can be reset as follows:

1. Loosen, but do not remove, screw securing throttle control wire assembly at engine.
2. Move throttle control lever on handle to FAST position.
3. Move lever to which control wire is fastened at engine to fast position and retighten screw to secure throttle control wire assembly.

LUBRICATION



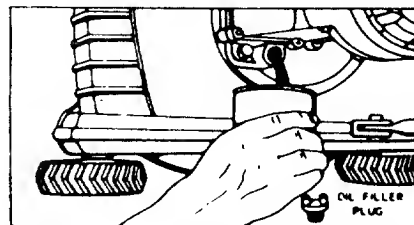
IMPORTANT

Always stop engine and disconnect spark plug wire before cleaning, lubricating or doing any kind of work on lawn mower.

Wheels—Wheel bearings are of self-lubricating Fortiflex. They require no lubrication. If your unit is provided with optional ball bearing wheels, lubricate at least once a season with light oil.

Throttle—Periodically lubricate throttle control lever and throttle wire assembly with a few drops of light oil (SAE No. 10 or 20) for ease of operation.

Engine—Follow Engine Lubrication Instructions. Change oil after first 5 hours of operation while engine is warm. Thereafter, change oil every 25 hours of operation while engine is warm. Engine may be drained through oil filler opening. Be sure to replace drain plug and oil filler cap.



Protective Shield—The pivot points on the protective shield should be lubricated with light oil to prevent any rust or binding.

Chute Deflector—The torsion spring and pivot point should be lubricated periodically with light oil to prevent any rust or binding. Deflector must work freely.

MAINTENANCE

Cutting Blade—The blade may easily be removed for grinding or replacement as follows:

1. Remove bolt and lockwasher holding blade and blade adapter to engine crankshaft.
2. Remove blade and blade adapter from engine crankshaft.
3. Remove two bolts, lockwashers and nuts holding blade to blade adapter (if necessary).

When sharpening blade, follow the original angle of grind as a guide. It is extremely important that each cutting edge receives an equal amount of grinding to prevent an unbalanced blade. An unbalanced blade will cause excessive vibration when rotating at high speeds and may cause damage to the mower.



NOTE

To insure safe operation of your unit, ALL nuts and bolts must be checked periodically for correct tightness.

Deck—The underside of mower deck should be cleaned after each period of use as grass clippings, leaves, dirt and other matter will accumulate. This accumulation of grass clippings, etc., is undesirable as it will invite corrosion and may cause an uneven discharge of grass clippings at the next cutting.

The deck may be cleaned by tilting the mower forward or on its right side and scraped clean with a suitable tool or by washing with a stream of water from a garden hose.



CAUTION

Do not direct the stream of water at a hot engine as damage to the engine may result.

Storage—The following steps should be taken to prepare lawn mower for storage.

1. Clean and lubricate mower thoroughly as described in the preceding instructions.
2. Refer to Engine Manual for correct engine storage instructions.
3. Coat mower's cutting blade with chassis grease to prevent rusting.
4. Place blocks under deck to raise tires clear of floor.
5. Store mower in a dry, clean area.

HANDLE STORAGE

This model is so equipped to provide easy fold away handle storage.

1. Loosen the two plastic knobs on each side, center of handle.
2. Pull outward on the bottom of each side of the lower handle and push forward.
3. Fold the upper handle back and down.

To take the Handle out of Storage Position.

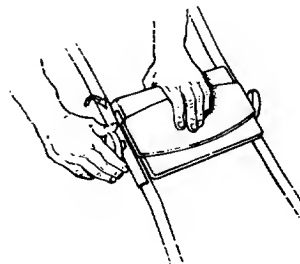
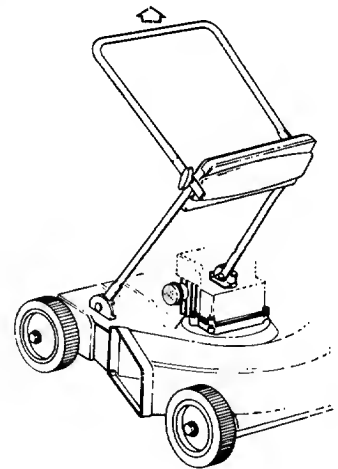
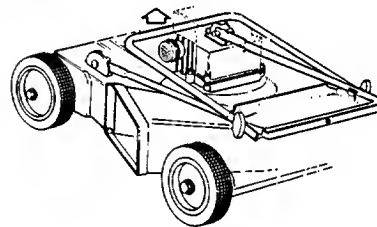
1. Lift the upper handle up and towards the rear.
2. Pull the handle back until it **Locks** into the operator's position.
3. Tighten the two plastic knobs securely.

USING YOUR MOWER

For best results do not cut wet grass because it tends to stick to underside of the mower thus preventing proper discharge of grass clippings. If wet grass must be cut, reduce walking speed to help distribute the clippings more effectively.

New grass should be treated as wet grass, otherwise a normal walking speed is about the right pace for efficient mowing. The best mowing pattern is one that allows the clippings to discharge towards the uncut part of the lawn. This permits recutting of the clippings to further pulverize them. When cutting high weeds, discharge towards cut portion, then recut at right angles to first direction.

Lawn should be cut in the fall as long as there is growth.





NOTE

The manufacturer DOES NOT recommend the use of any accessory on this Rotary Mower other than those manufactured by MTD Products Inc.

GRASS CATCHER Model No. 196-003A is available as optional equipment for the mowers shown in this manual.



WARNING

1. The mower should not be operated without the entire grass catcher or chute deflector in place.
2. The mower should not be operated without the protective shield on the rear of the deck in place.



NOTE:

Under normal usage bag material is subject to wear and should be checked periodically. Be sure any replacement bag complies with the mower manufacturer's recommendations.

For replacement bags, use only factory authorized replacement bag No. 764-0119.

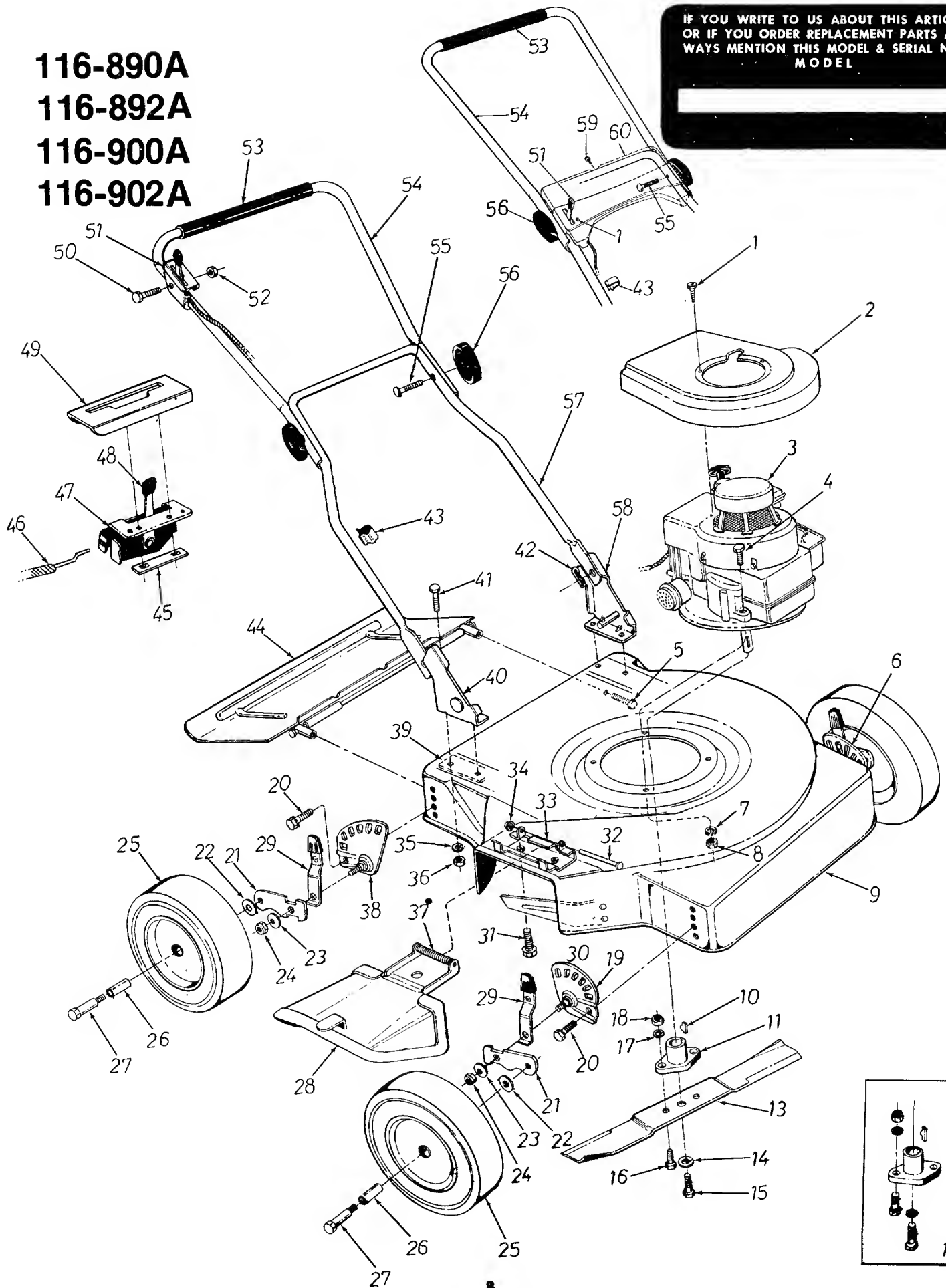


IMPORTANT

After striking a foreign object, stop the engine, remove wire from spark plug. Thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

116-890A
116-892A
116-900A
116-902A

IF YOU WRITE TO US ABOUT THIS ARTICLE
 OR IF YOU ORDER REPLACEMENT PARTS AL-
 WAYS MENTION THIS MODEL & SERIAL NO
 MODEL



PARTS LIST FOR MODELS 116-890A, 116-892A, 116-900A AND 116-902A

REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART	REF. NO.	PART NO.	COLOR CODE	DESCRIPTION	NEW PART
	710-0227		Slotted Hex Hd. Scr. #8 x .38" Lg. (892A & 902A)		31	710-0289		Hex Scr. 1/4-20 x .50" Lg.*	
2	10877		Engine Shroud (892A & 902A)		32	711-0555		Pivot Pin	
3	—		Engine		33	11130		Adapter Plate	
4	710-0158		Hex Scr. 5/16-24 x 1.25" Lg.*		34	726-0106		Push on Flange Palnut	
5	710-0567		Hex Sems Scr. 1/4-28 x .62" Lg.*		35	736-0329		L-Wash. 1/4" Scr.*	
6	10950		Height Adjuster Ass'y.—Comp.—L.H.		36	712-0287		Hex Nut 1/4-20 Thd.*	
7	736-0119		L-Wash. 5/16" Scr.*		37	732-0253		Torsion Spring	
8	712-0123		Hex Nut 5/16-24 Thd.*		38	10935		Index Plate Ass'y.—L.H.	
9	11658		20" Deck Ass'y. (890A & 892A)		39	08405		Reinforcement Plate	
	11659		22" Deck Ass'y. (900A & 902A)		40	12576		Handle Mount Bracket Assy.—R.H.	N
10	714-0365		#6 Hi-Pro-Key 5/32 x 5/8" Dia.		41	710-0252		Hex Scr. 1/4-20 x .75" Lg.*	
11	10769		Blade Adapter Kit		42	714-0104		Internal Cotter Pin 5/16" Dia.	
12	10769		Blade Adapter Kit		43	746-0128		Cable Clip	
13	742-0123		Blade 20" (890A & 892A)		44	11189		Rear Protective Shield Ass'y. (890A & 892A)	
	742-0125		Blade 22" (900A & 902A)			11197		Rear Protective Shield Ass'y. (900A & 902A)	
14	736-0217		L-Wash. 3/8" Scr. H.D.	45	726-0134		Speed Nut-Twin Type (890A & 900A)		
15	710-0459		Hex Scr. 3/8-24 x 1.50" Lg. Grade 5	46	746-0174		Conduit and Wire (890A & 900A)		
16	710-0117		Hex Scr. 5/16-24 x 1.00" Lg. Grade 5		746-0232		Conduit and Wire (892A & 902A)		
17	736-0119		L-Wash. 5/16" Scr.*	47	11598		Throttle Control Ass'y.		
18	712-0123		Hex Nut 5/16-24 Thd.*	48	07470		Control Knob—Red		
19	10934		Index Plate Ass'y.—R.H.	49	731-0344		Plastic Label (890A & 900A)		N
20	710-0209		Hex Sems Scr. 3/8-16 x .62" Lg.*	50	710-0606		Hex Scr. 1/4-20 x 1.50" Lg.* (890A & 900A)		
	10937		Pivot Bar	51	746-0234		Throttle Control Ass'y. Comp. (890A & 900A)		
22	736-0105		Belleville Wash. .400 I.D. x .88 O.D.		11610		Throttle Control Ass'y. Comp. (892A & 902A)		
23	736-0219		Belleville Wash. .400 I.D. x 1.13 O.D.	52	712-0107		Hex Cent. L-Nut 1/4-20 Thd. (890A & 900A)		
24	712-0116		Elastic L-Nut 3/8-24 Thd.	53	718-0143		Grip		
25	09392-501		Wheel Ass'y. Comp. 7 x 1.50 (890A & 892A)	54	11204		Upper Handle (890A & 900 A)		
	09392-502		Wheel Ass'y. Comp. 8 x 1.75 (900A & 902A)		10011		Upper Handle (892A & 902A)		
26	07006		Fortiflex Bearing	55	710-0405		Curved Hd. Carriage Bolt 5/16-24 x 1.75" Lg.		
27	738-0102		Axle Bolt—Shld. Scr. .498 Dia. x 1.450	56	09966		Hand Knob		
28	11679		Chute Deflector Ass'y.—Comp.	57	11615		Lower Handle (890A & 900A)		
29	10949		Spring Lever Ass'y. with Knob		10970		Lower Handle (892A & 902A)		
30	10951		Height Adjuster Ass'y.—Comp.—R.H.	58	12575		Handle Mount Bracket—L.H.		N
				59	710-0148		Self. Tap Scr. #8-32 x .38" Lg. (892A & 902A)		
				60	11606		Handle Panel (892A & 902A)		

*For faster service obtain standard nuts, bolts and washers locally. If these items cannot be obtained locally, order by part number and size as shown on parts list.

460—Green Flake 462—Red Flake

When ordering parts, if color or finish is important use the appropriate color code shown above (e.g. Green Flake finish—11658—(460).)

NOTE: This instruction manual covers various models and all accessories shown do not necessarily apply to your model mower.

NOTE: The engine is not under warranty by the mower manufacturer . . . If repairs or service is needed on the engine, please contact your nearest authorized engine service outlet. Check the "Yellow Pages" of your telephone book under "Engines—Gasoline."



PARTS INFORMATION

POWER EQUIPMENT PARTS AND SERVICE

Parts and service for all MTD manufactured power equipment are available through the authorized service firms listed below. All orders should specify the model number of your unit, parts numbers, description of parts and the quantity of each part required.

ALABAMA	BIRMINGHAM
Auto Electric & Carburetor Co.	2625 4th Ave. S. 35233
ARKANSAS	NORTH LITTLE ROCK
Sutton's Lawn Mower Shop	Rt. 4, Box 368 72117
	FORT SMITH
Mity Mite Motors, Inc.	2515 Towson Ave. 72901
CALIFORNIA	SAN BERNARDINO
Lawn Mower Supply Co.	25608 E. Baseline 92410
	SAN FRANCISCO
J.W. Jewett Co.	981 Folsom St. 94107
	SACRAMENTO
Luttig & Severson	2030 28th St. 95818
COLORADO	DENVER
South Denver Lawn Equip.	527 West Evans 80223
CONNECTICUT	SUFFIELD
The Jones & Ramsey Co.	850 Thompsonville Rd. 06078
FLORIDA	JACKSONVILLE
Radco Distributors	2403 Market St. 32206
	CORAL GABLES
Moz-All of Florida, Inc.	365 Greco Ave. 33146
GEORGIA	EAST POINT
East Point Cycle & Key	2834 Church St. 30344
ILLINOIS	LYONS
Keen Edge Co.	8615 Ogden Ave. 60534
INDIANA	ELKHART
Ports & Soles Inc.	2101 Industrial Pkwy. ..46514
	CORYDON
Brown Equip. Dist., Inc.	110 Beech St.47112
IOWA	DUBUQUE
Power Lawn & Garden Equip. .	2551 J.F. Kennedy52001
KANSAS	WICHITA
Hixon, Inc.	3030 Moscot 67204
LOUISIANA	NEW ORLEANS
Suhren Engine Co.	8330 Earhart Blvd. 70118
MARYLAND	TAKOMA PARK
Center Supply Co.	6867 New Hampshire Ave. 20012
MASSACHUSETTS	SPRINGFIELD
Morton B. Collins Co.	300 Birnie Ave. 01107
MICHIGAN	MOUNT CLEMENS
Power Equipment Dist.	36463 South Gratiot... 48043
	LANSING
Lorenz Service Co.	2500 S. Pennsylvania.. 48900
MINNESOTA	MINNETONKA
Hance Distributing Inc.	11212 Wayzata Blvd. ..55343
MISSISSIPPI	BILOXI
Biloxi Sales & Service, Inc.	506 Caillavet St. 39533
MISSOURI	KANSAS CITY
Automotive Equip. Service	3117 Holmes St. 64109
	ST. LOUIS
Henzler, Inc.	2015 Lemay Ferry Rd. 63125
NEBRASKA	OMAHA
R.P.W., Inc.	7402 "L" St. 68127

BRIGGS & STRATTON, TECUMSEH AND PEERLESS PARTS AND SERVICE

Briggs & Stratton, Tecumseh and Peerless parts & service should be handled by your nearest authorized engine service firm. Check the yellow pages of your telephone directory under the listing *Engines Gasoline*, Briggs & Stratton or Tecumseh Lauson

NEW YORK	CARTHAGE
Gamble Dist., Inc.	West End Ave. 13619
	SYRACUSE
Kimber's, Inc.	115 N. Geddes St. 13204
	ROCHESTER
Henry W. O'Neil & Associates ..	410 N. Goodman St. ... 14609
NORTH CAROLINA	GREENSBORO
Dixie Sales Company	327 Battleground Ave.. 27402
	GOLDSBORO
Smith Hardware Co.	515 N. George St. 27530
OHIO	WADSWORTH
National Central	687 Seville Rd. 44281
	CLEVELAND
Bleckrie, Inc.	7900 Lorain Ave. 44102
	CARROL
Stebe's Mid-State Mower Supply	Box 366 43112
	WILLARD
Sunshine Wholesale Tire Outlet	Route 224 44890
	MANSFIELD
McClure Lawn & Garden Supply..	1114 Lexington Ave. . 44903
OKLAHOMA	MUSKOGEE
Victory Motors, Inc.	605 S. Cherokee 74401
	ADA
Ada Auto Supply	301 E. 12th St. 74820
OREGON	PORTLAND
Kenton Supply Co.	8216 N. Denver Ave. . 97217
PENNSYLVANIA	LANCASTER
Roub Supply Co.	Jones & Mulberry Sts...17604
	PITTSBURGH
Bluemont Co.	11125 Frankstown Rd.. 152
TENNESSEE	KNOXVILLE
Moster Repair Service	2423 Broadway, N.E. ..37917
	MEMPHIS
Memphis Cycle & Supply Co.	421 Monroe Ave.38103
American Sales & Service, Inc. .	1922 Lynnbrook 38117
TEXAS	DALLAS
Marr Brothers, Inc.	423 E. Jefferson 75203
	HOUSTON
Bullord Supply Co.	2409 Commerce St. 77003
	SAN ANTONIO
Catto & Putty, Inc.	P.O. Box 240878206
	FORT WORTH
Woodson Sales Corp.	1702 N. Sylviaonia 76111
UTAH	SALT LAKE CITY
A-1 Engine & Mower Co.	437 E. 9th St.84111
VERMONT	BURLINGTON
Vermont Appliance Co.	44 Lakeside Ave.05401
VIRGINIA	RICHMOND
RBI Corp.	963 Myers St. 23260
WASHINGTON	SEATTLE
Bailey's Rebuild, Inc.	1325 E. Madison St. ...98102
WEST VIRGINIA	CHARLESTON
Young's, Inc.	233 Virginia St., E. ... 25301
WISCONSIN	APPLETON
Automotive Supply Co.	123 S. Linwood Ave. ..54911

WARRANTY PARTS AND SERVICE POLICY

The purpose of warranty is to protect the customer from defects in workmanship and materials, defects which are NOT detected at the time of manufacture. It does not provide for the unlimited and unrestricted replacement of parts. Use and maintenance are the responsibility of the customer. The manufacturer cannot assume responsibility for conditions over which it has no control. Simply put, if it's the manufacturer's fault, it's the manufacturer's responsibility; if it's the customer's fault, it's the customer's responsibility.

CLAIMS AGAINST THE MANUFACTURER'S WARRANTY INCLUDES

1. Replacement of Missing Parts on new equipment.
2. Replacement of Defective Parts within the warranty period.
3. Repair of Defects within the warranty period.

All claims MUST be substantiated with the following information:

1. Model Number of unit involved.
2. Date unit was purchased or first put into service.
3. Date of failure.
4. Nature of failure.